Water Chemistry, Biotic Factors and Their Effects on the Populations of Zooplankton and Phytoplankton in Silver Lake in New Carlisle, Ohio

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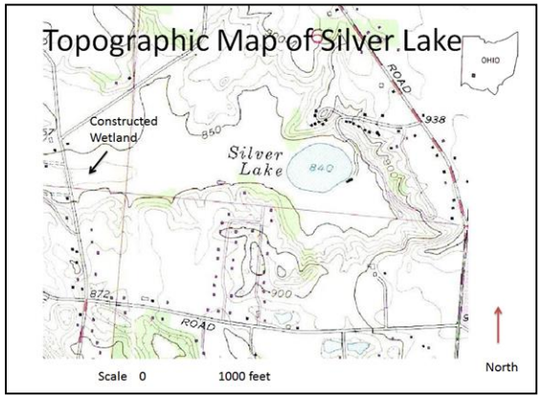
Hypotheses

- I hypothesized that Silver Lake would be an oligotrophic (nutrient-poor lake)
- Algal species would differ, and there would be less algal abundance than selected Ohio eutrophic lakes
- Zooplankton would also be less abundant compared to eutrophic Ohio lakes.

Geology

- The lake was created by glacial activity.
- This creates springs underneath the lake which fill the lake with water.
- Overflows into constructed wetland.

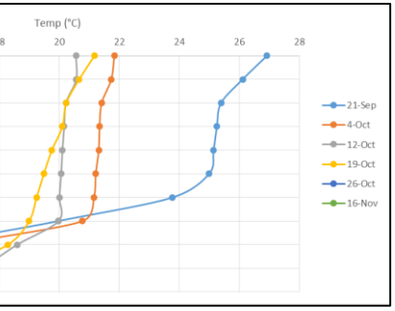


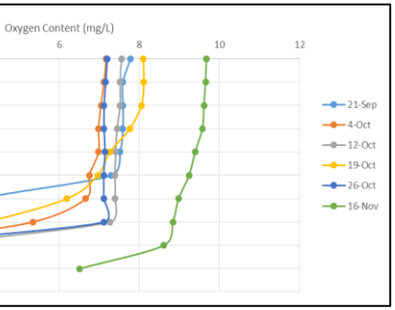
Methods

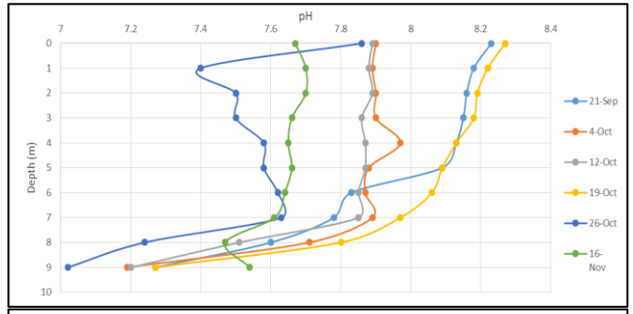
- YSI 650 MDS electronic equipment for physical and chemical data
- Secchi disk for water clarity
- Qualitative and quantitative plankton nets for organism sampling
- Microscope Analysis

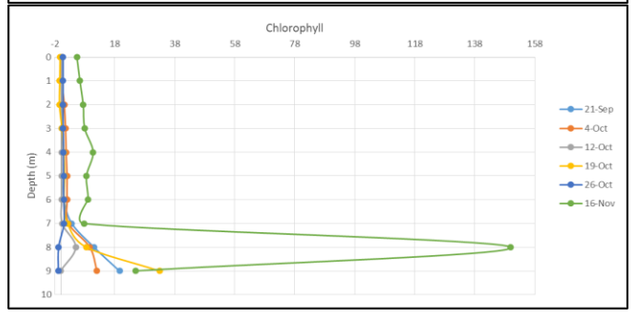
Results

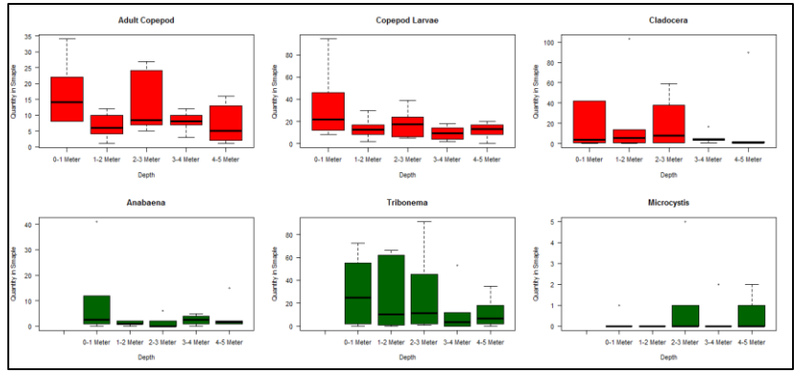
- Silver Lake Secchi Disk depth average was 4.6 meters
- Grand Lake Saint Marys and Lake Erie Secchi Disk depth average was 0.2 meters and 1.5 meters respectively











Conclusions

- Silver Lake is an oligotrophic lake according to its water clarity, chemistry, and plankton abundance
- The algae community in Silver Lake is different from GLSM and Lake Erie
- There were the same zooplankton taxa present in each lake, but the abundance changed over time